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EXAMINER

MADSEN, ROBERT A

ART UNIT

PAPER NUMBER

1761

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/722,591

Applicant(s)

DALGEWICZ, EDWARD J.

Examiner

Robert Madsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-79 is/are pending in the application.
- 4a) Of the above claim(s) 13-21, 30-37 and 48-77 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 22-29, 38-47, 78 and 79 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The Amendment filed February 12, 2003 has been entered. Claims 1-79 remain pending in the application with claims 13-21,30-37, and 48-77 being drawn to a non-elected invention in Paper No. 8.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4,39-42, and 78 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen (US 5219665) as evidenced by Weiss et al. (US 396631)

4. Regarding claims 1-4,39-42,78, Chen et al. teach thermoforming trays, which notoriously comprise bottoms and flanges made from a first layer of PETG, second layer of copolymer of ethylene and glycidyl methacrylate or a terpolymers with butyl acrylate (in Example 4 in Table 1), and a third layer of polyethylene (Column 3, lines 39-59, Column 4, lines 7-22, Column 5, lines 15-25,50-55., Column 6, lines 24-35, Column 7, lines 3-15, Example ). Chen et al. teach the polyethylene layer is the same as the layer taught by to Weiss et al. , who teach LDPE (Column 2, lines 56-58 of Weiss et al.), and thus Chen et al. , as evidenced by Weiss et al. , inherently teach LDPE.

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5. Claims 1-9,12 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Schneider et al. (US 6333094). See Column 1 line 55 to Column 2, line 22Column 3, lines24-29, Column 4, lines 8-16 and 24-41,Column 5, line 66 to Column 6, line 8. and Examples (which teach amorphous or non-crystalline PETG).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-11,22-29,38-46,78,79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blemberg et al. (US 5424347) in view of Wakabayashi et al. (US 6355336 B1) and Schneider et al. (US 6333094 B1)

8. Regarding claims 1-11, 39-46,78, Blemberg et al. teach the conventional thermoformed food tray used for microwave treatment of foods that comprises a multi-layer film formed by a or polyvinylidene chloride resin wherein the multilayer sheet is 20-200 mils for forming a tray (Abstract, Column 4, line 50 to Column 5, line 32). However, Blemberg et al. are silent in teaching the multilayer sheet with the recited three-layer composition.

9. Wakabayashi et al. teach a three layer resin which is an improvement over the conventional polyvinyl chloride or polyvinylidene chloride resins used in conventional microwave food applications that tend to rupture .denatured or damage during high

temperature treatments in microwave heating of foods (Column 1, lines 5-40).

Wakabayashi et al. teach a microwavable film for use with foods that comprises a first layer of copolymerized PBT, second layer of grafted copolymer of ethylene and glycidyl methacrylate, and a third layer of HDPE, LLDPE or LDPE as recited in claims 1-6, 10, 11, 39-44, and 78 (See Column 2, lines 21-40, column 3, lines Column 4, lines 20-30 and lines 54-58, Column See Column 5, lines 1-43, Column 7, lines 49-57, Column 8, lines 1-43, Column 9, line 59 to Column 10, line 26, Examples.). Wakabayashi et al. teach during use in the microwave with food and do show some distortion (i.e. haze), as recited in claims 45 and 46 (See Examples and Column 7, line 58- Column 8, line 21).

10. Schneider et al. is relied on as further evidence of the conventionality of thermoforming a multilayer film comprising a terephthalate layer and further teaches PET, a grafted copolymer of ethylene and glycidyl methacrylate layer, and a LLPDE or LDPE layer. Schneider et al. is also relied on as further evidence of the conventionality of using terpolymers of ethylene, a glycidyl acrylate and methacrylate with 8% glycidyl acrylate in the copolymer and 2-8% glycidyl acrylate in the terpolymer as recited in claims 7-9 (See Column 1 line 55 to Column 2, line 22 Column 3, lines 24-29, Column 4, lines 8-16 and 24-41, Column 5, line 66 to Column 6, line 8. and Examples (which teach PET and amorphous PETG)).

11. Therefore, it would have been obvious to modify Blemberg et al. and use the film of Wakabayashi et al. (i.e. with first layer of copolymerized PBT, second layer of grafted copolymer of ethylene and glycidyl methacrylate, and a third layer of LLDPE or LDPE ) to form a tray for microwave heating a food item since (1) Wakabayashi et al.

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teach the film is an improvement over polyvinylidene chloride based films and (2) one would have been substituting one conventional multilayer film for another for the same purpose: treating food in the microwave. It would have been further obvious that the film would distort to some extent (i.e. haze ) as recited in claim 45, since Wakabayashi teaches some hazing occurs. It would have been further obvious to include terpolymers for a second layer such as ethylene, a glycidyl acrylate and methacrylate, and methacrylate with 8% glycidyl acrylate in the copolymer and 2-8% glycidyl acrylate in the terpolymer as recited in claims 7-9, since Schneider et al. teach these as suitable polymers and compositions of ethylene-glycidyl acrylate polymers for thermoformed sheets and one would have been substituting conventional types of polymers for the same purpose.

12. Regarding claim 22,27-29, 38,79, Blemberg teaches the sheet must be 20-200 mils for thermoforming into a tray, but is silent in teaching any particular stretch ratio in claim 22 and 78, or the particular thickness of each layer as recited in claims 22,27-29,38,79. However, Wakabayshi et al. teach the grafted copolymer of ethylene and glycidyl methacrylate layer should be 5-30% of the thickness of the film and the terephthalate layer is 20-80% of the thickness of the film, which would result in a first layer of 4-160 mils and a second layer of 0.1 to 60 mils.. Furthermore, Wakabayashi et al. teach the film is stretched 2-6 times in the machine direction and 0-3 times, which overlaps the range of 1.5 to 3.1 recited in claim 22 in the transverse direction (Column 5, line 59-Column 6, line 5, Column 7, lines 30-38)

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13. Therefore it would have been obvious to have been obvious to select a first layer of any thickness between 5mil and 35 mil, a second layer of between 0.1 and 2 mil as recited in claims 22,26, 27,79 and 38, since Blemberg teaches 20-200 mil films and Wakabayshi teaches the conventional percentages of these two layers in a film intended to replace the film of Blemberg. It also would have been obvious to use a stretch ratio from 1.5:1 to 3:1, since this was the preferred region taught by Wakabayshi for the film intended to replace the film of Blemberg. With respect to the particular thickness of the third layer as recited in claims 22 ,38,29, and 79, to select any particular range between 1 and 5 mils would have been an obvious result effective variable of the number of additional layers added since (1) Wakabayshi teach more than three layers, (2) Wakabayshi teach the preferred relative thickness of the first and second layers and (3) Blemberg teach the preferred overall thickness of the film (i.e. it can be anywhere from 20-200 mil).

14. Claims 23 ,24, and 26, share the same limitations as claims 3 4, and 10, respectively, previously addressed/rejected above.

15. Regarding claim 25, Blemberg et al. is silent in teaching essentially a PET co-polymer. Wakabayshi teach essentially a PBT co-polymer and Schneider et al. teach essentially a PET co-polymer (See the discussion above for the rejection of claims 1-6,10,11, 39-46,78). Therefore, it would have been obvious once, it was known to use essentially one type of terephthalate co-polymer to use PET since one would have been substituting one conventional terephthalate co-polymer for another for a sheet used for thermomolding.

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16. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blemberg et al. (US 5424347) in view of Wakabayashi et al. (US 6355336 B1) and Schneider et al. (US 6333094 B1) as applied to claims 1-11,22-29,38-46,78,79 further in view of Brady et al. (US 5916615).

17. Blemberg et al. modified teach modified atmosphere packaging with low permeability to oxygen for food preparation (See Abstract of Blemberg), but is silent in teaching a cover film of highly elastic polyethylene.. Brady et al. are relied on as evidence of the conventionality of using a multi-layer package that has low permeability to oxygen in combination with a polyethylene containing cover for a modified atmosphere (Column 7, line 62 to Column 9, line 31, Examples).

18. Therefore, it would have been obvious to combine the package of Blemberg et al. modified with a lid stock of polyethylene using modified atmosphere packaging since Brady et al. multi-layer packaging with the same barrier properties having a PE lid stock , and one would have been substituting one form of multi-layer package for another for the same purpose: providing low permeability to oxygen.

### ***Response to Arguments***

19. Applicant's arguments with respect to the amended claims have been considered but are moot in view of the new ground(s) of rejection.



**Conclusion**

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rohde et al. (US 6517918 B1) and Siour et al. (US 6511724 B1). teach forming various items with the recited first, second and third layers.

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

22. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Madsen whose telephone number is (703)305-0068. The examiner can normally be reached on 7:00AM-3:30PM M-F.

24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (703)308-3959. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)872-9311 for After Final communications.

25. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0061.

Robert Madsen   
Examiner  
Art Unit 1761  
June 1, 2003

  
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